

Recreational Use Attainability Analysis

Cover Sheet

Water Body Name: Big Muddy Creek

Water Body Identification #: 441

Completed UAA Checklist:

- ☒ Pre-Field Preparatory Data Sheet
- ☒ Maps with actual survey sites marked
- ☒ Data Sheet A
- ☒ Data Sheet B – 3 of 3 pages for each site
 - o Number of Sites: _____
- ☒ Data Sheet C (if applicable)
 - o Number of Interviews: 0
- ☒ Photographs
 - o Quantities
 - Upstream 6
 - Downstream 6
 - Other 11

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported in this UAA is true and accurate.

Signed: K. Hallardo Date: 07/15/2006
Printed Name: Carolina Sallardo Telephone #: (410) 356-8993
Organization: Tetra Tech, INC Position: Scientist

Pre-Field Preparatory Data Sheet
for Recreational Use Stream Surveys

Water Body Name: <i>Big Muddy Creek</i> (from USGS 7.5' quad)	
8-digit HUC: <i>10280101</i>	Missouri Water Body Identification (WBID) #: <i>441</i>
County: <i>Daviess</i>	
Upstream Legal Description:	
Downstream Legal Description:	
Discharger Facility Name(s): <i>Jameson WWTF</i>	
Discharger Permit Number(s): <i>MO8118010</i>	
Weather Conditions for Past 7 days: <i>Hot, sunny, humid</i>	

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

WBID # 441

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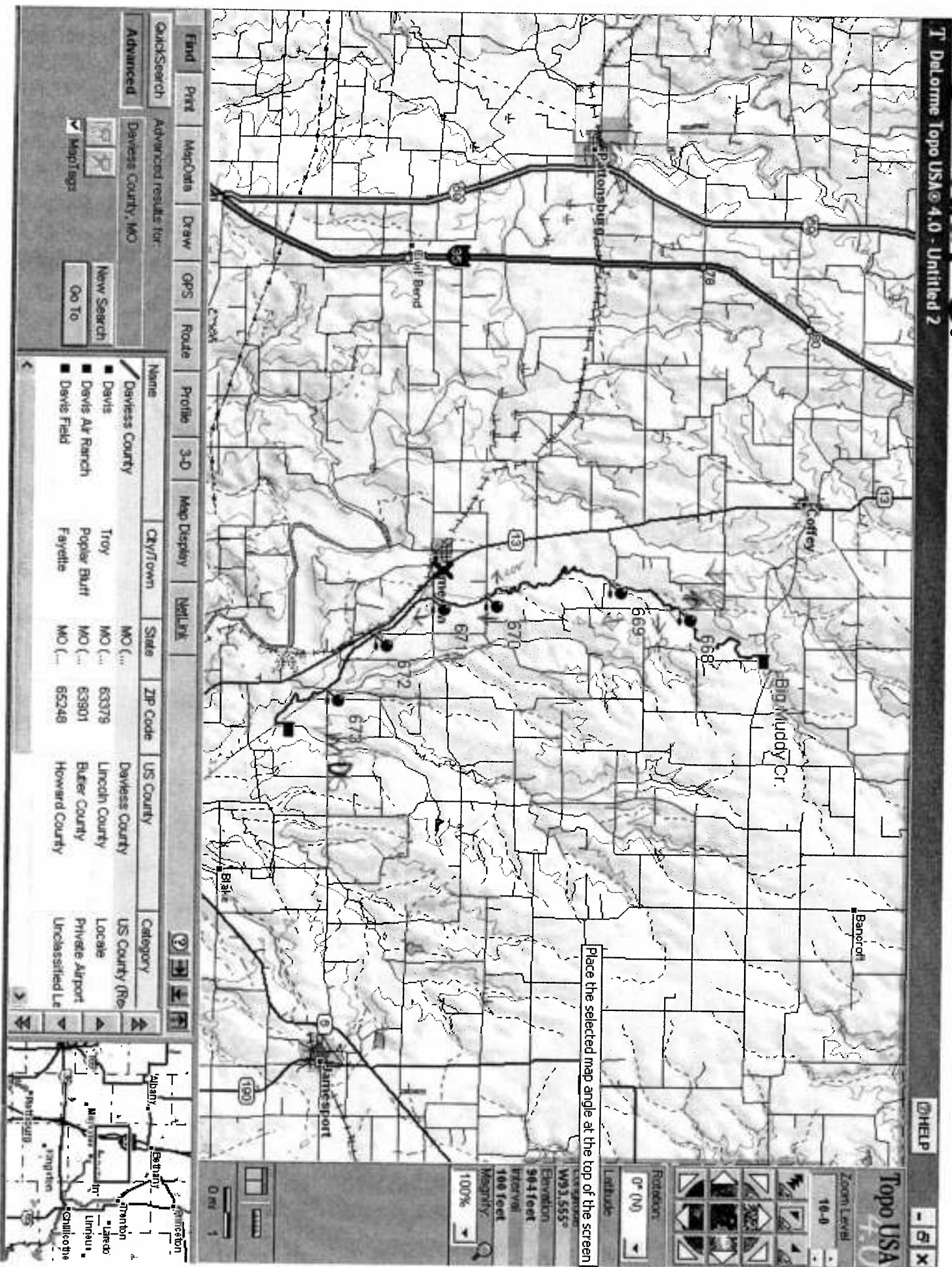
Date: 07/15/2006

Field Data Sheets for Recreational Use Stream Surveys

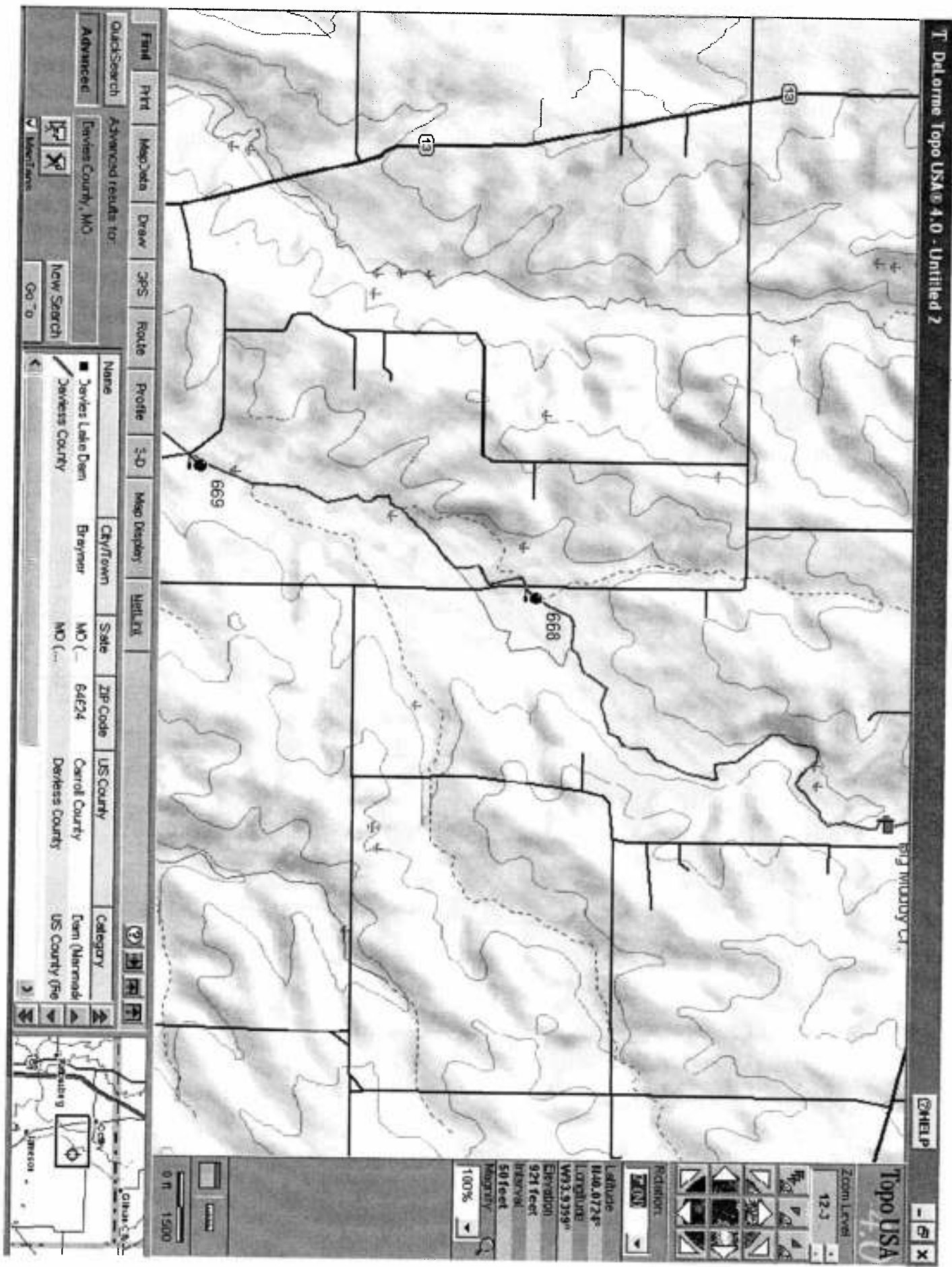
Data Sheet A - Water Body Identification

Water Body Name:	Big Muddy Creek
WBID #:	441
Upstream Coordinates: (WGS 84, ddd.ddddd)	40.06776, 93.96758
Downstream Coordinates: (WGS 84, ddd.ddddd)	39.97540, 93.93729
Current Weather Conditions:	Hot, sunny, humid
Number of Sites Evaluated:	6
Name(s) of Surveyor(s):	Carolina Gallardo, Alex DeVire

T Delorme Topo USA® 4.0 - Untitled 2

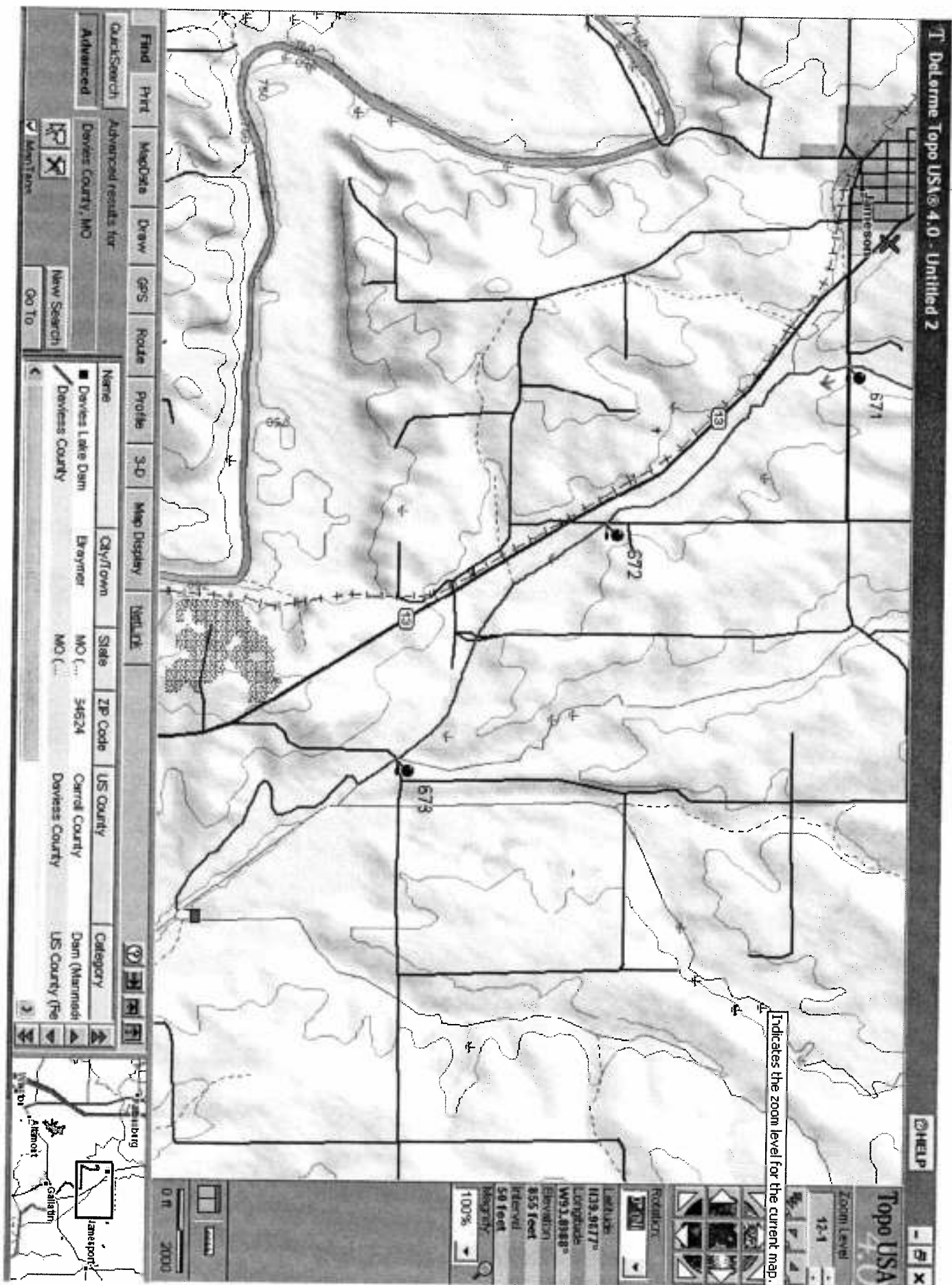


Big Muddy Cr. WBID 441



Big Muddy Cr

WBID 441



WBID # 441 Site # 668
Date: 07/15/2006

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Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization - 1 of 3
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>40.06776</u>	Arrival Time: <u>1036</u>
Longitude (ddd.dddd): <u>93.96758</u>	
Photo Ids: Upstream: <u>1002</u>	Downstream: <u>1003</u>
Other:	

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)

at 232nd street bridge crossing.

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>Dry Stream</u>	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)

* DRY STREAM

QC: AD

WBID # 441 Site # 668
Date: 07/15/2006

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Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

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	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input type="checkbox"/> Pool					
<input type="checkbox"/> Flow Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec):					

Downstream View Physical Dimensions:

*

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input type="checkbox"/> Pool					
<input type="checkbox"/> Flow Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec):					

Substrate*: (These values should add up to 100%.)

*

<input type="checkbox"/> % Cobble	<input type="checkbox"/> % Gravel	<input type="checkbox"/> % Sand	<input type="checkbox"/> % Silt	<input type="checkbox"/> % Mud/Clay	<input type="checkbox"/> % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

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Water Characteristics*: (Mark all that apply.)

*

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

QC: AD

* DRY STREAM

WBID # 441 Site # 668

Date: 07/15/2006

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Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 668

Date: 07/15/2006

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Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:

WBID # 441 Site # 669Date: 07/15/2006

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Field Data Sheets for Recreational Use Stream Surveys**Data Sheet B - Site Characterization - 1 of 3**
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>40.05207</u>	Arrival Time: <u>1013</u>
Longitude (ddd.dddd): <u>93.97733</u>	
Photo Ids: Upstream: <u>1000</u>	Downstream: <u>1001</u>
Other:	

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)at Forest Avenue bridge crossing**Surrounding Conditions*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>DRY stream</u>	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)* DRY segment QC:AD

WBID # 441 Site # 669Date: 07/15/2006

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Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input type="checkbox"/> Pool					
<input type="checkbox"/> Flow Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec):					

Downstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input type="checkbox"/> Pool					
<input type="checkbox"/> Flow Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec):					

Substrate*: (These values should add up to 100%.)

<input type="checkbox"/> % Cobble	<input type="checkbox"/> % Gravel	<input type="checkbox"/> % Sand	<input type="checkbox"/> % Silt	<input type="checkbox"/> % Mud/Clay	<input type="checkbox"/> % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

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Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

* DRY STREAM

QC:AD

WBID # 441 Site # 669

Date: 07/15/2006

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Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 669

Date: 07/15/2006

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Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:

WBID # 441 Site # 670Date: 07 / 15 / 2006

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Field Data Sheets for Recreational Use Stream Surveys**Data Sheet B - Site Characterization – 1 of 3**
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>40.01858</u>		Arrival Time: <u>0934</u>
Longitude (ddd.dddd): <u>93.97084</u>		
Photo Ids: Upstream: <u>0993</u>	Downstream: <u>0994</u>	Other: <u>0992, 0996, 0997</u>

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)at Isle Avenue bridge crossing.**Surrounding Conditions*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes (<u>0996</u>)	<input type="checkbox"/> Other:	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>Trash (0997)</u>				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)Trash, ditch run off (0992)

QC: AD

WBID # 441 Site # 670Date: 07/15/2006

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Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	30	2.2	30	0.075	0.1
<input checked="" type="checkbox"/> Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec): <u>0.05 m/sec</u>					

Downstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	15	2.2	10	0.175	0.25
<input checked="" type="checkbox"/> Flow Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Velocity (ft/sec): <u>0.05 m/sec</u>					

Substrate*: (These values should add up to 100%.)

% Cobble	10	% Gravel	40	% Sand	10	% Silt	30	% Mud/Clay	10	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

slight amounts of floating algae were found.

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

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QC: AD

WBID # 441 Site # 670

Date: 07/15/2006

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Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 670

Date: 07/15/2006

CA 07

6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:

WBID # 441 Site # 671Date: 07/15/2006

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Field Data Sheets for Recreational Use Stream Surveys**Data Sheet B - Site Characterization – 1 of 3**
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>45.00414</u>	Arrival Time: <u>0915</u>
Longitude (ddd.dddd): <u>93.97046</u>	
Photo Ids: Upstream: <u>0989</u>	Downstream: <u>0990</u>
Other: <u>0988</u> <u>0991</u>	

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)at Hwy P bridge crossing.**Surrounding Conditions*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: <u>mowed field (0991)</u>	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>Trash in stream (0988)</u>				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)Trash in stream (0988)

RC - AD

WBID # 441 Site # 671Date: 07/15/2006

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Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	10	2.2	10	0.25 22	0.25
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Velocity (ft/sec): <u>CG 7-15-06</u>			

Downstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	15	3.2	10	0.33	0.5
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Velocity (ft/sec):			

Substrate*: (These values should add up to 100%.)

% Cobble	10 % Gravel	60 % Sand	5 % Silt	20 % Mud/Clay	5 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

slight amounts of attached algae along stream's each edge.

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

QC - AD

WBID # 441 Site # 671

Date: 07/15/2006

5

Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 671

Date: 07/15/2006

6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:

WBID # 441 Site # 672Date: 07/14/2006

3

Field Data Sheets for Recreational Use Stream Surveys**Data Sheet B - Site Characterization – 1 of 3**
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>39.98840</u>	Arrival Time: <u>1705</u>
Longitude (ddd.dddd): <u>93.95720</u>	
Photo Ids: Upstream: <u>0984</u>	Downstream: <u>0985</u>
Other: <u>0986</u> <u>0987</u>	

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)at 235th street bridge crossing.**Surrounding Conditions*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes <u>0987</u>	<input checked="" type="checkbox"/> Other: <u>Ag. fields</u>	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>Run off ditch (0986)</u>				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)QC : AD

WBID # 441 Site # 672Date: 07/14/2006

4

Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input type="checkbox"/> Pool	35	3.8	25	0.2	0.3
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Velocity (ft/sec):		

Downstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	15	3.2	30	0.2	0.4
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Velocity (ft/sec):		

Substrate*: (These values should add up to 100%.)

% Cobble	% Gravel	20 % Sand	% Silt	% Mud/Clay	80 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

Attached and floating algae were found in abundant amounts.

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

QC : AD

WBID # 441 Site # 672

Date: 07, 14, 2006

5

Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 672

Date: 07/14/2006

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Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No

If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:

WBID # 441 Site # 673Date: 07/14/2006

3

Field Data Sheets for Recreational Use Stream Surveys**Data Sheet B - Site Characterization – 1 of 3**
(A separate Data Sheet B must be completed for each site)

Latitude (ddd.dddd): <u>39.97540</u>	Arrival Time: <u>1630</u>
Longitude (ddd.dddd): <u>93.729 93729</u>	
Photo Ids: Upstream: <u>CG</u> Downstream: <u>0978</u> <u>0979</u>	Other: <u>0980</u> <u>0982</u> <u>0981</u> <u>0983</u>

Narrative Description of Location: (Describe access point to stream, nearby roads, landmarks, etc.)at 250th street bridge crossing.**Surrounding Conditions*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes (<u>0981</u>)	<input checked="" type="checkbox"/> Other: <u>Ag fields (0983)</u>	

Human Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>Trash (0982) run off ditch (0980)</u>				

Sources of Pollution: (e.g., trash dumping, tires, drainages, discharges, etc.)Trash (0982)

QC: AD

WBID # 441 Site # 673Date: 07/14/2006

4

Data Sheet B - Site Characterization - 2 of 3

Stream Morphology:

Upstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	40	3.5	50	0.1	0.2
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Velocity (ft/sec): not measurable		

Downstream View Physical Dimensions:

	Distance from access point (m)	Width (m)	Length (m)	Avg. Depth (m)	Max Depth (m)
<input type="checkbox"/> Riffle					
<input type="checkbox"/> Run					
<input checked="" type="checkbox"/> Pool	30	2.5	20	0.15	0.3
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Velocity (ft/sec): not measurable		

Substrate*: (These values should add up to 100%.)

% Cobble	20	% Gravel	60	% Sand	10	% Silt	10	% Mud/Clay		% Bedrock	
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

Floating and attached algae were found in moderate amounts.

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

QC: AD

WBID # 441 Site # 673

Date: 07/14/2006

5

Data Sheet B - Site Characterization – 3 of 3

Comments: Please describe any departures from protocol and the reasons for departure (e.g., unanticipated unique local conditions, problems in measuring, site relocation).

WBID # 441 Site # 673

Date: 07/14/2006

6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C – Interviews

(Make additional copies as necessary for multiple interviews)

1. Do you live in the area? ☐ Yes ☐ No

If so, how long have you lived here? _____

2. Have you personally used this water body for recreation since 1975? ☐ Yes ☐ No
If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often do you use it for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

3. Have you observed others using this water body for recreation since 1975? ☐ Yes ☐ No
If so, please check ALL that apply:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

How often have you observed it being used for recreation?

G More than 5 times per year

G 1 – 5 times per year

G Less than 1 time per year – please describe: _____

4. Additional Comments: _____

Contact Information (if willing to provide):

Name:

Address:

Telephone #:











